

REMARKS

In view of the above amendments and following remarks, reconsideration of the rejections contained in the Office Action of March 27, 2006 is respectfully requested.

It is initially noted that all of the prior claims have now been canceled and replaced with new claims 37-55. These new claims include independent claims 37, 44 and 51. All of these independent claims emphasize the fact that the present invention is directed to a semiconductor manufacturing system.

In particular, all of the claims are directed to a semiconductor manufacturing system for producing a substrate that is to be treated, in which a controller controls an operation for the semiconductor manufacturing system by carrying out a control program. The controller is recited as including functions for, among other things, changing the control program at a point where a control program is not carrying out a controlled process.

In particular, in independent claims 37 and 44, it is recited that the controller includes functions for determining the timing at which the control program can be changed, wherein a process event for growing a film on a substrate is not determined as a time for changing the control program, and storing the control program in a memory in accordance with the result of the determining. Further, each claim recites that the control program is carried out according to a number of specified semiconductor manufacturing system events, including the process event for forming or growing a film on a substrate.

Independent claim 51 recites that the controller includes functions for holding data used for carrying out a prior control program, temporarily holding the new control program, receiving an instruction as to an input of a change from a user and storing the new control program in a memory, so that it can be carried out by a processor, according to the instruction, wherein the control program is changed at a timing when the controller to which the control program is supplied does not carry out a control process.

Accordingly, the present invention realizes the installation of a control program in a semiconductor manufacturing system without inhibiting operation of the system. In particular, the control program is not changed during a process event for growing or forming a film on a substrate.

The system thus has no reduction in the quality of the substrate that is being produced. The timing can be determined either automatically or by a user.

Further, by holding data that is used to carry out the prior control program, stored parameters, such as a temperature changing rate or gas flow rate employed for carrying out the prior control program can be employed for carrying out the new control program.

Thus it may be seen that each of the independent claims now presented clearly emphasizes the relation of the present invention to a semiconductor manufacturing system. While the Examiner rejected prior claims 20-36 as being anticipated by Klein, Klein does not disclose or suggest a semiconductor manufacturing system, or, for that matter, a system for supplying a semiconductor manufacturing system control program.

In rejecting claim 20, for example, the Examiner has cited the title of the invention of Klein as provided a system for supplying a semiconductor manufacturing system control program. However, Klein is directed to on-line programming changes for industrial logic controllers. There is no disclosure or suggestion of its use, or any indication of its suitability for, a semiconductor manufacturing system. This difference is further emphasized in each of the new independent claims by the recitation of the semiconductor manufacturing events according to which the control program is carried out.

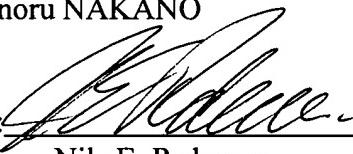
In view of the above it is respectfully submitted to be clear that all of the claims now pending in the present application distinguish over Klein. Indication of the allowability of the claims is accordingly requested.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance, and the Examiner is requested to pass the case to issue. If the Examiner should have any comments or suggestions to help speed the prosecution of this application, the Examiner is requested to contact Applicant's undersigned representative.

Respectfully submitted,

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